CORRESPONDENCE

Comparing videofluoroscopy and endoscopy to assess swallowing in bottle-fed young infants in the neonatal intensive care unit

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To the Editor:

As practitioners specialized in dysphagia, we read the article "Comparing videofluoroscopy and endoscopy to assess swallowing in bottle-fed young infants in the neonatal intensive care unit" by Armstrong et al. [1] with interest. The development of oral feeding skills in fragile infants is an international topic of interest because of the increased number of infant survival in neonatal units. Therefore, research investigating good (instrumental) diagnostic tools to identify dysphagia is crucial. The goal of Armstrong et al. [1] was to test the diagnostic accuracy of both VFSS and FEES in neonates. Given that preterm infants develop and mature in varying ways, it is known that as infants learn to master oral feeding skills, transient dysphagia may be experienced. We are concerned about a possible drive towards the use of two (invasive) instrumental assessments in very young and fragile infants. Recent publications about "cue-based feeding" approaches in neonates [2, 3] indicate that different components are essential for safe and efficient oral feeding and that maturation occurs at different times and rates in neonates. Understanding the functional maturation level and the pathophysiological mechanisms underlying oral feeding difficulties in individual infants is essential to provide personalized management strategies. In pediatric dysphagia, caregivers should be cognizant of these heterogeneous factors.

The use of instrumental assessments can be helpful to understand the nature of an infant's underlying difficulties, and both FEES and VFSS have their own advantages and limitations. It should be clearly stated that the most important issue is to know what is the most likely clinical problem which requires a thorough investigation. This should be at the cot side based on a well-established clinical assessment, in order to implement the most appropriate oral feeding experience. In addition, as stated by Huda [4], the adage in pediatric dysphagia diagnostics should be "Don't order tests that don't affect management". In the current study the accuracy of detecting aspiration and/or penetration with FEES and VFSS was assessed, whilst other relevant diagnostic factors were not clearly considered.

Arvedson and Lefton-Greif established four principle factors to consider VFSS: (1) suspicion of oropharyngeal dysphagia on basis of underlying diagnostic conditions, presentations or both from detailed clinical assessment and observations, (2) the expectation that VFSS findings may clarify diagnostic inquiries or help direct management, (3) the infant's readiness to participate in the examination procedure, and (4) the probability that findings will make a difference in the care of the infant. They additionally suggested that VFSS may not be the "gold standard" [5]. We agree with Armstrong et al. [1] there are no published studies on the diagnostic accuracy for VFSS and FEES in a homogeneous group of infants. However, neonates on a NICU are not a homogeneous population and the way oral feeding develops will depend on multiple factors.

In conclusion, we would like to emphasize that the complex feeding development in vulnerable neonates is such that an instrumental assessment (VFSS or FEES) for penetration and aspiration does not address all of an infant's skills required for the development of oral feeding.

References

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